

U.S. Army Center for Health Promotion and Preventive Medicine

A SOLDIER'S GUIDE TO STAYING HEALTHY IN INDONESIA AND MALAYSIA

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INTRODUCTION

This country-specific guide should be used in conjunction with [GTA 08-05-062, *Guide to Staying Healthy*](#), and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. This health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.

INDONESIA OVERVIEW

[Indonesia](#), in southeastern Asia, has a strategic location along major sea-lanes that connect the Indian and Pacific Oceans. The country straddles the equator, and the borders include the Pacific Ocean and New Guinea in the east; Australia in the south; the Indian Ocean in the west; and Malaysia, the South China Sea, and the Philippines in the north. Indonesia consists of over 13,000 islands of which about 6,000 are inhabited. Five islands account for 90 percent of the land area. The majority of the islands consist of rugged volcanic mountains covered by dense tropical forests; however, some of the islands have swamps and plains. Indonesia is one of the most volcanically active regions on earth, with more than 100 active volcanoes. The region is subject to frequent earthquakes. The elevation ranges from sea level along the coastlines to over 16,000 feet in the Sudirman Mountain Range on Irian Jaya, which is also the highest point in the Pacific Basin. The climate is tropical with an average daily temperature range of 70° to 90° F with 80 to 90 percent humidity in the lowlands. Temperatures and humidity are lower as elevation increases, and temperatures below freezing can occur at elevations over 9,800 feet. Indonesia's wet season occurs from November to March, and annual rainfall averages 40-78 inches.

MALAYSIA OVERVIEW

[Malaysia](#) is composed of two regions separated by about 400 miles of the South China Sea. This country is located to the north of Indonesia with the same eastern and western borders; Thailand is located to the north. Peninsular Malaysia consists of a 300-mile long central mountain range with an average elevation of 3,300 feet and a peak elevation of 7,180 feet. Heavily populated, coastal lowlands border the mountains to the west, and densely forested swamps border the mountains to the east. In East Malaysia, the southern state Sarawak consists of a 20- to 40-mile-wide swamp-covered, coastal plain that merges into the jungle-covered low hills of the interior. The northern state Sabah consists of a 10- to 20-mile-wide coastal plain that merges into a complex series of mountain ranges, which include Mount Kinabalu, the highest peak in Malaysia at over 13,000 feet. Malaysia has a tropical climate with a near constant average daily temperature of 81° F. Temperatures rarely rise above 95° F or drop below 68° F. Dense rain forests cover approximately 70 percent of the country with the heaviest rainfall from March through May and September through November. The average annual rainfall ranges from 90-130 inches.

INDONESIA AND MALAYSIA RISK ASSESSMENT

Based on a combination of all major infectious diseases that occur in a country, an [overall country risk level](#) is assigned as low, intermediate, high, or highest risk. Indonesia and Malaysia are HIGH RISK for infectious diseases. Diseases of military importance to forces deployed to Indonesia and Malaysia include [hepatitis A and E](#), [typhoid/paratyphoid fever](#), and diarrheal diseases such as [cholera](#), bacterial diarrhea, and protozoal diarrhea, all acquired by consuming contaminated food, water, and dairy products; vector-borne diseases such as [malaria](#), [dengue fever](#), Chikungunya fever,

[Japanese encephalitis](#), [murine typhus](#), and [scrub typhus](#) which are acquired through the bites of mosquitoes and other insects; [schistosomiasis](#) and [leptospirosis](#) from swimming, wading, or skin contact with contaminated water; [rabies](#) and [anthrax](#) from animal contact; and [sexually transmitted diseases](#). Environmental factors also pose a significant health risk to deployed forces and include sewage, agricultural, and industrial contamination of water and food supplies; extreme heat and humidity; high levels of air pollution in the major cities; and improperly discarded hazardous waste.

INCREASED REGIONAL DISEASE THREATS

Throughout the region and specifically in Chikungunya in Indonesia, there is significant risk for acquiring incapacitating mosquito-borne diseases including dengue fever and malaria. These diseases are transmitted year-round, day and night, in both urban and rural areas. Annual outbreaks of dengue fever occur. Dengue fever is a leading cause of death in Indonesia. Risk for dengue fever is increased in urban environments, and the disease is most common on the island of Java and around the Malaysian capital city of Kuala Lumpur. You are at especially high risk for malaria when operating in rural areas throughout the region and in Sabah, Malaysia. Although within Indonesia the major urban cities of Jakarta, Surabaya, and Denpasar, as well as the tourist resorts of Bali and Java, are malaria-free, do not stop taking your malaria prevention medication unless directed by your medical authority. The increased risk of these mosquito-borne diseases is elevated during and immediately after the rainy season. Preventing exposure to mosquitoes and other biting vectors at all times and in all areas will help reduce your risk of acquiring vector-borne diseases.

Forest fires due to timber companies “slashing and burning” trees, the burning of refuse, emissions from oil refineries, and other industrial emissions adversely affect the air quality in both Indonesia and Malaysia. Air pollution, especially in Kuala Lumpur, can reach hazardous levels, causing respiratory symptoms such as coughing and wheezing.

FIELD SANITATION TEAM

Each company-sized unit has a Field Sanitation Team (FST) whose members are trained (40-hour course) and fully equipped IAW [AR 40-5](#), [FM 4-25.12](#), and [FORSCOM REG 700-2](#). Know who the members of your FST are, and know how they can assist in preventing medical threats to your health. Become familiar with FST equipment and training.

VECTOR-BORNE DISEASES

Several vector-borne diseases are present throughout this region. Significant disease transmission is sustained year-round to include urban areas. The disease threats include [malaria](#), [dengue fever](#), Chikungunya fever, and [Japanese encephalitis](#) from mosquitoes; [murine typhus](#) from fleas; and [scrub typhus](#) from mites. Many other diseases are spread by the bites of mosquitoes, ticks, sand flies, fleas, mites, and lice.

Your medical authority will determine if these diseases or other vector-borne disease are a threat in your specific location and provide appropriate countermeasures.

- Take your malaria prevention pills when directed to do so. This is CRITICAL. Malaria is widespread in this region. Normally, you will begin taking medication prior to arriving in the area, while in the area, and after returning home.
- Use the [DOD Insect Repellent System](#) detailed in [GTA 08-05-062](#) to reduce your risk of acquiring a vector-borne disease. Wear permethrin-treated uniforms with trousers tucked into boots, sleeves rolled down, and undershirt tucked into trousers. Wear DEET on exposed skin.
- When deployed to this region, [sleep under a permethrin-treated bed net](#) to repel insects and further reduce risks of vector-borne diseases. Many insects in this region feed during the night, including mosquitoes that transmit malaria.
- When using both DEET and sunscreen products, apply sunscreen to the skin first so it does not interfere with the effectiveness of the DEET. After 30 minutes to an hour, apply the DEET. This allows the sunscreen to penetrate and bind to the skin first.

FOOD-BORNE AND WATER-BORNE DISEASES

The disease of greatest risk throughout this region is diarrhea from contaminated food, ice and/or water. Do not consume any food, ice, water, or beverages (to include bottled water) that have not been approved by the U.S. military. Assume all non-approved food, ice, and water is contaminated. Water, ice, and food items available in this region, including dairy products, fish, fruits, and vegetables, may contain unsafe levels of pesticides, chemical fertilizers, heavy metals, bacteria, and viruses. All water in East Timor, Indonesia, and one-third of Malaysia's 120 rivers are highly polluted. Contamination with human or animal waste is widespread. Even a one-time consumption of contaminated foods or water may cause severe illness. See [GTA 08-05-062](#) for appropriate countermeasures.

SKIN DISEASES

Skin irritations and infections, such as athlete's foot and ringworm, are common medical threats during any deployment and are commonly caused by fungi. The best prevention is to maintain clean, dry skin. See [GTA 08-05-062](#) for additional countermeasure information.

HOT AND COLD WEATHER INJURIES

Heat is the overall greatest medical threat when deployed to this region, especially during the early phase of deployment; acclimatization is critical. Individual and unit countermeasures are extremely important. Cold injuries can also occur in the mountainous areas of this region. The effects of cold weather are more severe in high mountainous areas due to reduced oxygen and lower air pressure. When deploying to the mountainous areas in this region, check with your unit on the requirement for

packing the extended cold weather clothing system. See [GTA 08-05-062](#) for appropriate countermeasures.

HAZARDOUS ANIMALS AND PLANTS

- Many species of highly poisonous snakes, well camouflaged and very aggressive, live in this region, which has the world's highest incidence of snakebites and snakebite deaths. Consider any snake encountered as poisonous, and do not handle. Seek immediate medical attention if bitten; untreated snakebites may cause serious illness or death within 1 hour.
- Several species of spiders capable of inflicting a painful bite are present throughout the region (including some very large and physically imposing tarantulas). If possible, avoid sleeping on the ground. Shake out boots, bedding, and clothing prior to use, and never walk barefoot. If bitten, seek medical attention immediately.
- Some regional plants have thorns, stinging hairs, or toxic resins that may puncture the skin or introduce poison into the skin causing skin irritation, rashes or infections. Avoid skin contact with plants when tactically feasible.
- Contact with the smoke from the burning of these plants can also cause skin rashes and damage to your lungs.
- Clean your clothing after contact with harmful plants. Decontaminate clothing by washing with soap and water.
- Some regional plants, often with fruit similar in appearance to that of edible plants, may cause systemic poisoning if leaves, berries, flowers, or other plant parts are chewed or swallowed. Symptoms include dizziness, vomiting, irregular heartbeat, and delirium or hallucinations.

TOXIC INDUSTRIAL CHEMICALS AND MATERIALS

When deployed, you may face health risks from industrial chemicals and materials as a result of activities by terrorists or warring parties; accidents related to improper design, maintenance, or operation of indigenous industrial facilities; inadvertent exposure to toxic waste materials in the environment; or improper handling or disposal of hazardous materials with which our own forces deploy. The degree of health risks depends upon many parameters. Consult your medical authority for additional information.

SEXUALLY TRANSMITTED DISEASES

[Sexually transmitted diseases](#) are highly prevalent in this region. Gonorrhea, chlamydia, and other infections are common, and may affect a high percentage of personnel who have sexual contact. Hepatitis B and human immunodeficiency virus (HIV) also occur throughout the region. Though the immediate impact of hepatitis B and HIV on an operation is limited, the long-term impact on your individual health is substantial. See [GTA 08-05-062](#) for appropriate countermeasures.

HIGH ELEVATIONS

High altitude illnesses can kill. Military operations occurring at elevations over 6,000 feet can seriously impact unit and individual effectiveness. Serious illness or death can result if you ascend rapidly without allowing for acclimatization. Remain well hydrated; individual water requirements are greater at higher altitudes.

- When deployed to high mountain areas, be observant of the common symptoms of mountain sickness: headache, nausea, vomiting, dizziness, fatigue, irritability, and coughing. Seek medical attention immediately if you experience any of these symptoms.
- Pyridostigmine bromide tablets may increase the chance of dizziness or fainting during the first 24 hours at high altitude if you are not acclimatized.
- Lower oxygen levels at high altitudes (“thin air”) combined with the heavier work requirements when wearing mission-oriented protective posture (MOPP) gear can increase your risk of high altitude illnesses. When wearing MOPP gear at higher altitudes, you may require more time and concentration to perform assigned tasks. For appropriate countermeasures during high altitude operations, see [GTA 08-05-062](#) and [GTA 08-05-060, A Soldier's Guide to Staying Healthy at High Elevations](#).

HEARING PROTECTION

It is essential that you use properly fitted hearing protection during military operations. Exposure to high-intensity noise may cause hearing loss that can adversely affect your combat effectiveness and individual readiness. Good hearing is essential to mission success. If you are a dismounted soldier, the [Combat Arms Earplug](#) (NSN 6515-01-466-2710) will protect you from the impact noise of weapons fire while only slightly interfering with voice communications and detection of combat sounds such as vehicle noise, footfalls in leaves, and the closing of a rifle bolt. While not as effective as the Combat Arms Earplug in preserving your ability to hear important mission-related sounds, noise muffs or standard earplugs are very effective in preventing noise-induced injury. If you are a member of vehicle or helicopter crews, your combat vehicle crew or aircrew helmets have built-in hearing protectors.

ORAL HEALTH

Dental disease is a common problem during deployments due to the challenge of maintaining good oral hygiene. You should deploy with toothbrush, dental floss, and fluoride toothpaste. Daily flossing and twice daily brushing of teeth is the best way to ensure prevention of periodontal disease and to decrease your risk of problems such as trench mouth and tooth decay. In difficult tactical environments, teeth should be brushed at least once a day. Seek medical attention immediately at the onset of any dental problems.

PRE-DEPLOYMENT HEALTH INFORMATION

- [Complete the Pre-Deployment Health Assessment \(DD FORM 2795\)](#) to assess your state of health before deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.
- You will not have access to your health care record during the deployment. The Adult Preventive and Chronic Care Flowsheet ([DD FORM 2766](#)) will be used as your deployment health record. This document will include information on all your immunizations, any medications you are currently taking, and any ongoing medical problems that you may have. When you go through readiness processing, ensure that all appropriate information is documented on your DD FORM 2766. When you return home, this information will be placed in your regular health record.

INFORMATION ABOUT YOUR HEALTH CARE WHILE DEPLOYED

- It is important that you know where to seek health care while deployed. This may or may not be through the same channels as your home station. Ask your chain of command for more information.
- While deployed, you must maintain your health and seek care whenever an illness or injury threatens your ability to complete your tasks. Your unit is depending on you. It is always better to seek care early so that your problems can be documented appropriately and taken care of immediately.

POST-DEPLOYMENT HEALTH INFORMATION

- [Complete the Post-Deployment Health Assessment \(DD FORM 2796\)](#) to assess your state of health after deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.
- If you become sick after you return home, tell your physician that you were deployed.
- Complete malaria medications as directed, and receive follow-on medical care/tests as directed.

Contact your Preventive Medicine or Medical Support Unit for more information.



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